

look for patrons leaving their tables, and check the color of the lights on the terminals."

Rejection of Claim 1

Claim 1 was rejected as obvious, based on Barakai and Vak.

Claim 1 recites:

1. (Amended once.) **A portable terminal, comprising:**
 - a) **a keypad containing between 10 and 15 keys;**
 - b) **a card reader;**
 - c) **a wireless modem for communicating with a local base station connected to a telephone line;**
 - d) **a display;**
 - e) **logic means for**
 - i) **accepting data from the card reader and the keypad; and**
 - ii) **transmitting said data to a base station, using said wireless modem**

and which comprises means for

 - iii) **issuing messages on said display which instruct the user to**
 - A) **present a card to the card reader and**
 - B) **enter a monetary amount using the keypad; and**
 - f) **a printer for printing a paper receipt.**

The highlighted recitations of claim 1 are absent from the references.

re "Alphanumeric"

As to 1(a), Barakai discusses "a keypad 20 for receiving alphanumeric data." (Column 2, line 63.) If alphanumeric data is received, then the keypad must contain at least 26 letter-keys and 10 number-keys. Claim 1(a) recites "between 10 and 15 keys." Claim 1(a) is absent from Barakai.

If Barakai showed a numerical keypad, he would have called it a "numeric" keypad.

This conclusion is consistent with Barakai's statement that "the keypad 20 is connected to the microprocessor 24 via a decoder 21." If the keypad contained only 10 number-keys, then a decoder probably would not be necessary: each key could be assigned a separate line. Ten lines would run to the microprocessor 24. But the decoder is used to convert each key into its ASCII code, or equivalent. Thus, for 36 keys (26 + 10), a six-bit bus can be used, for the codes ranging from 000 000 to 111 111.

The reference is required to **clearly show** claim 1(a). It does not.

re: "Messages"

Applicant is unable to locate, in the references, the two messages recited in claim 1(e)(iii). Thus, Applicant requests, under 37 CFR §§ 1.104(b) and 1.106(b), that the PTO specifically identify these two messages, and the "logic means" which generates them, in the cited prior art.

In this connection, Applicant points out that claim

1(e)(iii)(B) recites a message instructing a user to "enter a monetary amount using the keypad." Barakai discusses using his keypad to re-enter an **account number**, not a "monetary amount." (Column 4, lines 45, 46.) Applicant is unable to locate a discussion of entering a **monetary amount** in Barakai.

This makes sense, because Barakai is merely inquiring whether a credit card is "black-listed" or not. Barakai needs no monetary amount to make this inquiry. Since he requires no "monetary amount," he does not issue a message prompting a user to enter one. Thus, he has no "logic means" for issuing such a message.

re: "Wireless"

Regarding the recited "wireless modem" of 1(c), the Office Action, bottom of page 2 and top of page 3, states:

It would have been obvious to replace Barakai's modem with a wireless modem. This is because . . . [of the well-known] use and benefits of using a wireless modem in portable transaction devices.

However, this assertion is ambiguous, in failing to distinguish between a "wireless modem" and a "cellular modem." Claim 1(e)(ii) recites that the "wireless modem" communicates with a "base station." Thus, claim 1 recites a "wireless modem," as that term is used in the art.

But another type of modem exists, namely, a "cellular" modem. These modems communicate with radio antennas located several miles away, just a cellular telephones do.

Thus, the Office Action has not shown a teaching for selecting a "wireless" modem over a "cellular" modem. Claim 1 recites the former.

Also, this reasoning is fatally defective. The reasoning says, in effect, "Use a wireless modem in a **portable transaction device**." But Barakai's device **is not portable**. The Office Action, in effect, is using Applicant's own claim as a reference. The preamble of claim 1 states, "A **portable** terminal, comprising . . ." The concept of portability was derived from Applicant's claim, not the references.

Further, the Vak reference has been cited as showing a wireless modem. However, that is not correct. The Office Action is confusing **wireless** modems with **cellular** modems. That is, Vak's block 52 in his Figure 1 is a "store and forward message switch." Electronic mail messages are stored there. (See column 5, bottom, and column 6.) A user can gain access to messages from one of the ATMs (Automated Teller Machines) 22, 24, 26, 28, or 34. (Column 7, lines 50 - 57.) Alternately, the user can gain access through a personal computer 71. (Column 7, top.)

In the latter case, the user goes through "data communication network" 74. (Column 7, top.) Plainly, this network 74 is a public-access telephone system, either hard-wired or cellular.

Vak states:

A modem 76, using either a hard wired or wireless connection may also communicate with the . . . network 74, to provide the electronic mail system 10 with a pager communication service 78 and a facsimile

transmission machine 82. (Column 7, lines 15
- 19.)

He states that his system 10 uses the fax machine 82 as an output device. That is, faxes are not received from the fax machine 82, but sent to it. (Column 35, lines 46, 47.) Similarly, the pager 78 is used to notify a user that e-mail messages are waiting for the user. (Column 35, lines 28 - 35.)

Therefore, while Vak discusses modems, they are used for **one-way communication**: either to FAX a message or send a message to a pager. Further, the one-way communication is from **one stationary system** (Vak's) to another (the pager network or FAX machine).

That does not lead to claim 1(c), which recites "c) a wireless modem for communicating with a local base station connected to a telephone line." Other claim recitations recite a **portable device** which communicates with this wireless modem. Neither reference shows such a portable device.

In addition, the Office Action, page 8, asserts that Vak indicates that wireless modems are substitutes for wired modems. Applicant requests that the precise language of Vak be identified.

Also, page 8 of the Office Action indicates that Applicant is not successfully making his point. "Wireless" modem is a term-of-art. It does not mean a modem lacking wires. By analogy, two types of non-wired telephone exist: "cordless" and "cellular."

-- A "cordless" telephone communicates with a base station, and allows the user a few dozen feet of roving capability.

-- A "cellular" telephone communicates with a radio antenna located miles away, and allows the user a few miles of roving capability.

In the Specification, "wireless," not "cellular," modems are under discussion. (See "Detailed Description . . ." second full paragraph, where an acoustic coupler is connected to a "cordless" telephone. The undersigned attorney wrote the Specification, and deliberately chose the combination of an acoustic coupler, plus cordless telephone.

Therefore, it appears that the Office Action is lumping "wireless" modems and "cellular" modems together. But they are completely different devices, with different functionality.

Further, the Office Action, page 8, asserts that the skilled artisan would be aware of the tradeoffs between wired and wireless modems. That assertion is **inconsistent** with the assertion that these modems are alternatives. If a tradeoff exists, then the "traded" units are not alternatives.

re: "Printer"

The Office Action asserts that addition of a printer to Barakai is obvious, because receipts are "helpful for record keeping purposes." However, such a generalized reason cannot be used to support the rejection. The reason is that Barakai **does not want paper receipts**. What would he do with them ?

That is, Barakai wants to learn whether a given credit card is contained on a "black list" or not. If not, then Barakai's

merchant proceeds with a transaction. Of what use is a paper receipt saying YES or NO ?

In fact, Barakai implicitly **teaches against** such receipts. He states that a problem with existing systems is that they "take a long time." (Column 1, lines 48, 49.) If you add paper receipts, the time taken will increase, contrary to Barakai's wishes.

Further, Barakai achieves the function of the paper receipt, but eliminates the paper. Therefore, he wants no paper receipt. That is, it may be assumed that Barakai's merchant follows proper procedures at all times. Thus, whenever a customer makes a purchase, the merchant uses Barakai's device to check the "black list." The merchant never omits this checking step. Further, whenever a card is found black-listed, the transaction is refused.

Consequently, whenever a transaction is made by the merchant, the **existence of the transaction itself** shows that the card was not black-listed. There is no need for a paper receipt from Barakai's device. The mere existence of the subsequent transaction, which may, or may not, be recorded on paper, acts as a record of the black-list inquiry. No paper is needed.

THEREFORE:

1. The references fail to show the two messages of 1(e)(iii), and the logic means which generates them.

- a) Barakai's keypad inputs an account number.

- He does not enter a monetary amount, because

he is not dealing with the credit card billing system. Thus, he has no need for a message prompting a monetary amount.

2. Claim 1 recites a "wireless modem," which is a term-of-art. A "cellular modem" may lack "wires," but a "cellular modem" is not a "wireless modem." The Office Action has grouped these two types of modems together in the prior art, but has not shown a reason for selecting one over the other for claim 1.

3. Claim 1 recites a **portable** device. Neither reference shows such.

4. Vak does not use his non-wired modem in a manner which leads to claim 1.

5. Barakai needs no printer, and other equipment (not shown in his patent) used in his overall transaction assume the function of a printer. Thus, Barakai cannot be used as a teaching for the need of a printer.

Different Perspective

From a different point of view, the Office Action asserts that Barakai shows all of claim 1, except for

- (1) the wireless modem,
- (2) and (3) the two messages, and
- (4) the printer.

The total number of elements in claim 1 can be counted in different ways. But in every counting which the undersigned attorney can

see, these four elements account for about fifty percent of the claim.

MPEP 2143.03 states:

To establish prima facie obviousness . . . all the claim limitations must be taught or suggested by the prior art.

If fifty percent of the claim limitations are not shown in the prior art, then this MPEP section is not being followed.

Claim 3

Claim 3 recites:

3. Terminal according to claim 1, and further comprising:

f) means for transmitting a code which identifies said terminal to said base station.

The Specification, page 10, section 4, discusses one reason for transmitting such a code.

The Office Action is apparently making a mistake in asserting that Barakai's user, when calling to verify a credit card, must identify himself. The Office Action is **assuming** that Barakai's system is dealing with a credit card **billing** company.

In that case, the operator of Barakai's device would sell merchandise to a customer, and order the billing company to add the cost of the merchandise to the customer's account. In this case, yes, Barakai's user, or device, may need to identify itself to the company.

Restated, the Office Action assumes that Barakai shows a point-of-sale terminal, which adds charges to a customer's account.

However, Barakai is not discussing such a system. He is clearly discussing something **OTHER THAN a point-of-sale terminal**. He merely verifies whether a credit card is "good" or not. Barakai's terminal has no reason to identify itself to the main computer 44, and Barakai discusses no such reason.

Further, why would this identification be made? It is plain that any identification would be made for purposes of an acceptance-rejection decision by the main computer 44. But Barakai discusses no such decision. And the Office Action has not shown why any such decision is desired.

The Office Action asserts that "terminal identification" is necessary in a "network environment." This is incorrect for at least two reasons. One is that Barakai does not show a "network." He shows a common telephone connection, wherein each remote terminal 10 dials up a main computer 44, but **separately**. That is not a "network." Thus, even if the general assertion is true, it does not apply to Barakai.

Secondly, the Office Action's assertion of "necessity" is simply untrue. You can telephone the U.S. Naval Observatory, at 303 - 499 - 7111, and obtain the time-of-day from a computer, which monitors an atomic clock. But you need not provide your identity.

Also, numerous companies offer public "fax-back" systems,

wherein you

- 1) make a telephone call to a specific number,
- 2) listen to a recording which describes documents,
- 3) select documents using your telephone keypad, and
- 4) provide the telephone number of a fax machine (which need not be yours).

The "fax-back" system then faxes the documents to the fax machine. But, in general, you need not provide your identity.

Therefore, numerous public-access facilities exist, which provide information by telephone, from a computer, without requiring a "terminal identification code." In fact, Barakai's system appears to be one of these. This makes sense: nobody but merchants would be interested in Barakai's "black list."

Further still, it appears that a hacker would need Barakai's software to use the "black list." Thus, hackers have no reason to call Barakai's computer, so there is no reason to take measures to keep them out.

Therefore, no reason exists to require a "terminal identification code" from people using Barakai's system.

Moreover, the absence of requiring a "terminal identification code" makes sense. If you have ever dialed into the INTERNET, you have observed that the step of password-checking takes considerable time. Barakai states that he wants to speed up the black list

checking operation. (Column 1, lines 48 - 54.) Eliminating the step of checking a "terminal identification code" speeds up the process.

In addition, as a practical matter, Barakai's system would, in practice, be paid for by the credit card companies, who get a percentage of every credit card transaction. There is no reason for merchants to identify themselves to Barakai's system. They probably do not pay for it directly.

Therefore, the Office Action's assertion is false: there is no "necessity" that a "terminal identification code" be used in every computerized merchandise transaction. Barakai does not discuss such a code, he does not need such a code, and such a code would slow him down, contrary to his desires.

In addition, the Office Action has shown **no evidence** of the "necessity" of such codes. The Office Action has merely given a **naked conclusion**, which is unsupported. Mere conclusions are insufficient. Applicant requests that the PTO specifically identify the "terminal identification code" in Barakai.

Also, claim 3 states that the code is transmitted **to the base station**, for identification of the terminal **to the base station**. All of the reasons cited by the PTO in favor of "terminal identification codes" apply only to the transmission of the codes **to another system**.

That is, even assuming that a "terminal identification code" is shown in Barakai, claim 3 does not recite that.

In addition, a double absence of recitations in the prior art

exists. Parent claim 1 recites a "wireless modem" and a "base station." The PTO has relied on either a "cellular modem" or a "wireless modem," but does not say which. A "cellular modem" does not have a "base station."

Claim 3 recites transmitting a code to the "base station," for identification. The PTO has not shown that within the prior art.

This factor militates against the PTO's assertion of interchangeability of the various modems under discussion. Claim 3 recites a "base station." Wired modems do not have them. Cellular modems do not have them. If you use either wired, or cellular, modems in claim 3, you cannot have the "base station."

Applicant requests that the "base station" be shown in the references.

Claim 4

Claim 4 recites:

4. Terminal according to claim 2, and further comprising:

f) means for detecting when a remote verification service signals acceptance of said monetary amount as a charge against an account, and

g) means for illuminating a light which is visible for at least 20 feet, in response to said acceptance, thereby allowing a person to view a plurality of said terminals illuminating said lights at different locations.

The PTO makes two statements:

(1) Barakai's terminal includes a wireless modem

(2) which receives . . . verification from the remote host/base station 40. (Page 4, last paragraph.

Statement (1) is **TOTALLY FALSE**, and statement (2) is only **partially true**.

As to (1), Barakai shows no "wireless modem." The Office Action **admits** that, at the bottom of page 2.

As to (2), Barakai **does not always** receive "verification" from station 40. When a user presents a credit card to Barakai's remote terminal 10, that terminal itself, **without consulting station 40**, determines whether the card is on a "black list." If not, the terminal 10 **does not call the station 40**, and thus receives no "verification" from the station 40. (See column 4, first and second full paragraphs.)

Thus, **sometimes**, Barakai does not call station 40.

Further, Barakai does not issue any "verification." When a card is found to be **absent** from the "black list," Barakai does not say "OK, now proceed with your purchase." (That may be a "verification.") Instead, Barakai requires the user to enter a "personal number."

If the number is found **present** on the "black list," Barakai contacts the computer center 40 to verify that the card is **still** on the "black list." (This is necessary because the list of "black list" numbers stored in the remote terminal 10 is received periodically. The list can change without knowledge of the

terminal 10.) If the card is not on the "black list," then "the process may continue." (Column 4, line 38.)

No signalling-of-acceptance, of the type recited in 4(f), is found in Barakai.

Also, the Office Action has failed to show the recitation of claim 4(g) in the prior art. Further, the Office Action is not giving weight to all of claim 4, which includes claim 1. That is, claim 1 recites a "means" for "issuing messages." If anything is obvious, it is that the "verification" should be displayed by such a "means."

But claim 4 recites, in addition, the "light which is visible for at least 20 feet." At a minimum, the PTO is required to show (1) the "means" for "issuing messages," (2) the "light" as recited and (3) a teaching for combining (1) and (2), in view of the fact that the "light" is **redundant** to the "means" for "issuing messages."

Further, the reasoning of the rejection is faulty. The rejection ignores the "light," on the grounds that it is a "design consideration," and is thus "not novel." That reasoning procedure is not allowed.

MPEP § 2143.03 states that **all claim limitations** must be considered, including indefinite limitations. A "design consideration" cannot be ignored.

Further, the undersigned attorney cannot find "design consideration" as a basis for rejection in the MPEP, and requests that it be cited.

Further still, it appears that the rejection is actually based on the doctrine of "minor differences," stated in Patents, by D. Chisum, § 3.02.

In any event, the PTO is applying the wrong legal test. The PTO must show a prior-art device, either in a single reference, or in a legal combination of references. Then, the PTO must show that claim 4 is identical to that device, or that any differences are "minor."

The PTO has failed to show how the "light" recited in claim 4 is a "minor" difference. Nor can that be done. The "light" adds a feature not shown in the prior art, namely, visibility from 20 feet. This allows the operator of the invention to leave the terminal while validation occurs, and then be summoned to the terminal when validation happens. The prior art does not show that. The PTO has not shown how that is a "minor" difference.

The assertion that the "20-foot" limitation is subjective is incorrect. Twenty feet are an objective, measurable quantity.

The rejection states that "scanners" and "readers" show claim 4, but none have been cited. MPEP 2143.03 states:

To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

Applicant requests a citation of prior art.

An amendment states that the light allows a person to see multiple lights at different locations. For example, a single waiter can see multiple lights at multiple tables. Neither

reference shows that.

Claim 5

Claim 5 recites:

5. A system, located within a building, comprising:

a) multiple base stations, each linkable to a respective dedicated telephone channel;

b) multiple portable terminals, each comprising

i) modem means for wireless communication with a base station;

ii) a card reader;

iii) a keypad containing between about 10 and 15 keys;

iv) a display;

v) logic means, coupled to the modem means, card reader, keypad, and display, for

A) issuing a message on the display requesting a user to present a card to the card reader;

B) issuing a message on the display requesting the user to enter a monetary amount via the keypad; and

C) transmitting data read from the card and the monetary amount to a remote agency, via the modem means.

Barakai is **directly contrary**, or silent, as to several recitations of claim 5. For example, the preamble of claim 5,

plus paragraph (a), state that the base stations are located within a single building. Barakai does not show this. He shows no "base stations."

The PTO apparently asserts that Barakai's computer 40 is the "base station," because the last paragraph on page 4 refers to "remote host/base station 40." The Office Action states, page 5:

The claim differs [from Barakai] in calling for plurality of terminals and base stations. It would have been obvious to incorporate such limitations in Barakai's system.

However, this statement is fatally defective.

Barakai **already** shows multiple terminals 10. Column 1, line 60, refers to "a plurality of local processing devices."

But Barakai **cannot** show multiple "remote host/base stations" 40. The reason is that his system is **designed** so that a **single** computer services the "plurality" of remote stations. In column 1, line 62, he refers to "a computer center."

The rejection is re-designing Barakai.

The claim recites multiple **portable** terminals. Barakai shows multiple terminals 10. But they are not portable.

The claim recited multiple base stations. The Office Action treats Barakai's computer 40 as a base station. But Barakai shows a **single** computer. He states that the multiple terminals dial into that single computer.

Further, he refers to a plurality of terminals 10 in his Figure 1. (Column 1, bottom, and claim 1, lines 5 and 6.) However, he does not state whether they are located at the **same**

location, or **different** locations. It would appear that they are at **different** locations. The reason is that if they were located at the **same** location, then no reason for telephone line 42 exists: the computer 40 can be located at that same location.

In addition, claim 5(a) recites that each terminal is linkable with a **respective** telephone channel. Barakai shows only a single telephone line 42 in his Figure 1.

Therefore, Applicant requests, under 37 CFR §§ 1.104(b) and 1.106(b), that the PTO specifically identify these three elements in Barakai:

1. multiple portable terminals at a single location;
2. a respective telephone channel for each terminal; and
3. multiple base stations.

Claim 8

Claim 8 was rejected, based on the grounds used for claim 2.

Claim 8 recites:

8. A method of transmitting data to a system which maintains accounts of credit transaction, comprising the following steps:

a) presenting a wireless terminal to a customer, which

i) issues a message requesting presentation of a credit card;

ii) reads card data from a credit card, when presented;

iii) issues a message requesting entry of a monetary amount;

iv) accepts said monetary amount from a keypad; and

v) transmits said monetary amount and said card data to said system.

Claim 8(a) is not found in either reference. Barakai clearly contemplates that his terminal is stationary. In Barakai, a "terminal" is not "presented" to a customer, nor is a "wireless" terminal "presented." Nor does Vak show these.

The references do not show 8(a)(i) nor (a)(iii): no messages are presented.

The references do not show claim 8(a)(iv): no monetary amount is accepted.

The references do not show claim 8(a)(v): no monetary amount is transmitted to a system.

Therefore, Applicant requests, under 37 CFR §§ 1.104(b) and 1.106(b), that the PTO specifically identify claim 8(a)(i), (a)(iii), (a)(iv), and (a)(v) in the references.

Claim 9

Claim 9 was rejected, based on the reasons given for claims 1, 2, and 4. Claim 9 recites:

9. A credit card verification device, comprising:

a) means for instructing a person, who has never seen said device previously, how to

successfully

(i) enter a credit card number into the device and

(ii) enter a monetary amount into the device;

b) means for transmitting said number and said amount, in a wireless manner, to a verification service; and

c) means for indicating to said customer whether said verification service accepts said amount.

The rejection fails to acknowledge the fact that "who is unfamiliar with the system" has been amended to read "who has never seen said device previously." That phrase is not "subjective," as the Office Action asserts.

That phrase is, in fact, a limitation, contrary to the Office Action's position. It is a simple matter to ascertain whether a person has ever seen the device previously.

The **highlighted** limitation has not been shown in the references.

Claim 10

Claim 10 recites:

10. In a portable, wireless credit card verification device, the improvement comprising:

a) means for enabling a person who has never seen said device previously to execute a credit card transaction.

No apparatus in the prior art has been cited to show claim 10. MPEP 2143.03 states:

To establish prima facie obviousness . . . all the claim limitations must be taught or suggested by the prior art.

Claim 11

Claim 11 was rejected, based on the data card of Barakai. Claim 11 recites:

11. Method according to claim 8, in which the data is carried by an ATM network during part of its travel to the system which maintains accounts of credit transactions.

Applicant submits that claim 11 is not being read properly. Claim 11 states that the data is carried by an "ATM network during part of its travel."

Both references use an ordinary, common carrier, telephone network to carry data. That is not an "ATM network." The Specification, beginning on page 8, in "Additional Considerations" number 1, 2, and 4 explain some relevant features of ATM networks.

The references do not show an "ATM network" carrying data.

Allowed and Allowable Claims

Claims 6 and 7 have been allowed. Claims 12 - 18 are allowable. Applicant persists in the assertion that the parent claims to these are, in fact allowable.

Conclusion

Applicant requests that the rejections to the claims be reconsidered and withdrawn.

Applicant expresses thanks to the Examiner for the careful attention given to this case.

Respectfully submitted,

Gregory A. Welte
Reg. No. 30,434

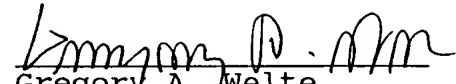
NCR Corporation
101 West Schantz Avenue
ECD - 2
Dayton, OH 45479
March 2, 1998
(937) 445 - 4956

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Gregory A. Welte
Reg. No. 30,434

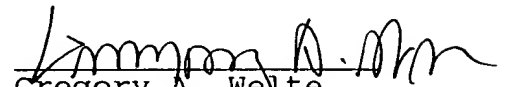
NCR Corporation
101 West Schantz Avenue
ECD - 2
Dayton, OH 45479
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Assignee's Docket No.: 6253)
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Group Art Unit: 2514)
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Serial No.: 08/673,642)
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Examiner: Thien Le)
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Filing Date: June 25, 1996)
)
Title: Portable Credit Card)
Verifier)
)
)

CERTIFICATE OF MAILING

I certify that the documents contained herewith are addressed to the Commissioner of Patents and Trademarks, Washington, D.C., 20231, and will be deposited with the U.S. Postal Service, first class postage prepaid, on March 2, 1998.


Gregory A. Welte